

~~*Ship Monday*~~

Work Order ID 125038

Friday, October 03, 2014 10:49:25 AM

125038

Page 1

Item ID: D4171-1

Accept

N900040100

Setup Start *NS1*

Revision ID:

Stop *NS2*

Item Name: Bushing

Start Date: 10/3/2014 Start Qty: 12.00

12

Cust Item ID:

Required Date: 10/3/2014 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals: Process Plan: MCS

Date: 14-10-03

Tooling:

Date:

Run Start *NR1*

QC:

Date:

SPC (Y/N):

Date:

Stop *NR2*

Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
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Draw Nbr

Revision Nbr

D4171

A

100

0.00

100

DOOSAN LATHE

Doosan

Memo

0.00

Doosan Lathe

1-Turn as per Dwg & Folio FA963
2-Deburr

12 ϕ DAS 25 9-89 14-10-3

110

0.00

110

QC2- Inspect parts off machine FAI/FAIB

QC

Memo

0.00

Quality Control

12 ϕ DAS 25 9-89 14-10-3

140

0.00

140

QC8- Inspect parts - second check

QC

Memo

0.00

Quality Control

Da 14/10/04 12 ϕ DAS 08 9-89

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>																

Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
Supplier									
Training									
Transport									
Unapproved									

FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Work Order ID 125038

Friday, October 03, 2014 10:49:25 AM

125038

Page 2

Item ID: D4171-1

Accept

N900040100

Setup Start ***NS1***

Revision ID:

Stop ***NS2***

Item Name: Bushing

Start Date: 10/3/2014 Start Qty: 12.00

12

Cust Item ID:

Required Date: 10/3/2014 Req'd Qty: 12.00

12

Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start ***NR1***

QC:

Date:

SPC (Y/N):

Date:

Stop ***NR2***

Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID Tool # Plan
Code Accept Reject Reject Insp.
Qty Qty Number Stamp

200

Identify as per dwg & Stock Location: **Sto96**

0.00

200

Packaging

Memo

0.00

Packaging

12

OCT 06 2014

DAS
06
9-89

210

QC21- Final Inspection - Work Order Release

0.00

210

QC

Memo

0.00

Quality Control

MLJ

14-10-06

MF
14-10-06

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width:100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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Root Cause	Date	Step	Qty	Description of work order update or non-conformance	Initial Chief Eng	Action Description	Sign & Date	Verification	QC Inspector
Design									
Doc/Data									
Equip/Tooling									
Handling/Pre									
Material									
Operator									
Offset/Setup									
Process									
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Training									
Transport									
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FAULT CATEGORY

Landing Gear <input type="checkbox"/> Bending <input type="checkbox"/> Centre Not Concentric <input type="checkbox"/> Cracks <input type="checkbox"/> Crimp/Kink/Ripple/Wave <input type="checkbox"/> Cuffs <input type="checkbox"/> Crushing <input type="checkbox"/> Heat Treat <input type="checkbox"/> Inspection Strip in Tube <input type="checkbox"/> Marks/Chatter <input type="checkbox"/> Turning Sequence <input type="checkbox"/> Wave/Twist in Tube	General <input type="checkbox"/> Bend <input type="checkbox"/> BOM/Route <input type="checkbox"/> Broken/Damage/Defect <input type="checkbox"/> Burrs <input type="checkbox"/> Contamination <input type="checkbox"/> Countersink <input type="checkbox"/> Cut Too Short <input type="checkbox"/> Drawing <input type="checkbox"/> Drill Holes <input type="checkbox"/> Finish <input type="checkbox"/> Fit/Function	<input type="checkbox"/> Folio/Program <input type="checkbox"/> Grain <input type="checkbox"/> Hardware <input type="checkbox"/> Inspection Incomplete/Unqualified <input type="checkbox"/> Instructions Incomplete/Unclear <input type="checkbox"/> Misaligned/off center <input type="checkbox"/> Mislabeled <input type="checkbox"/> Misread <input type="checkbox"/> Off-set <input type="checkbox"/> Out of Calibration <input type="checkbox"/> Out of Sequence	<input type="checkbox"/> Outside Dimensions <input type="checkbox"/> Over/Under tolerance <input type="checkbox"/> Part Incorrect <input type="checkbox"/> Part Lost/Missing <input type="checkbox"/> Part Moved <input type="checkbox"/> Positioned Wrong <input type="checkbox"/> Power Loss/Surge	<input type="checkbox"/> Pressure/Forced <input type="checkbox"/> Set-up <input type="checkbox"/> Temperature/Cure <input type="checkbox"/> Weld <input type="checkbox"/> Wrong Stock Pulled <input type="checkbox"/> Other
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Picklist Print

Friday, October 03, 2014 10:49:31 AM

Page 1

Work Order ID: 125038

125038

Parent Item: D4171-1

D4171-1

Parent Item Name: Bushing

Start Date: 10/3/2014

Required Date: 10/3/2014

Start Qty: 12.00

Required Qty: 12.00

Comments: IPP REV:A NEW ISSUE 10-09-22 JLM VERIFIED BY:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M303R1.000		Purchased	No			100	f	30.9167	0.08	2			

M303R1 000

303 Round Bar 1.00

**

SL 14-10-3

Location

Loc Qty

Loc Code

MAT028

30.9167

m128496

30.9167

126618

1.0

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

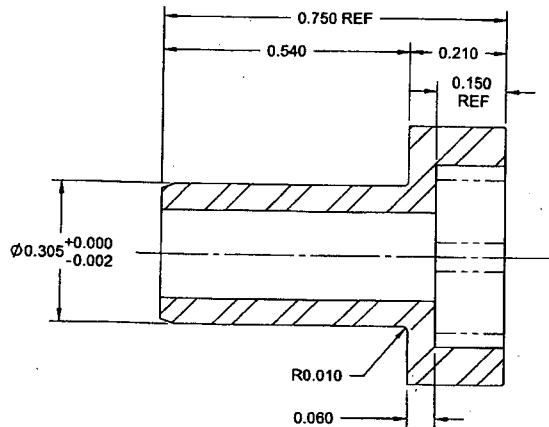
Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework <input type="checkbox"/> Scrap <input type="checkbox"/> Use-as-is <input type="checkbox"/> Suspected Unapproved <input type="checkbox"/>	AGAINST DEPARTMENT/PROCESS <table style="width: 100%;"> <tr> <td>Skid-tube <input type="checkbox"/></td> <td>Crosstube <input type="checkbox"/></td> <td>Water Jet <input type="checkbox"/></td> <td>Engineering <input type="checkbox"/></td> </tr> <tr> <td>Machining <input type="checkbox"/></td> <td>Small Fab <input type="checkbox"/></td> <td>Prod. Eng. Coord. <input type="checkbox"/></td> <td>Quality <input type="checkbox"/></td> </tr> <tr> <td>Thermoforming <input type="checkbox"/></td> <td>Finishing <input type="checkbox"/></td> <td>Rec/Store/Packaging <input type="checkbox"/></td> <td>Other <input type="checkbox"/></td> </tr> <tr> <td>Large Fab <input type="checkbox"/></td> <td>Composite <input type="checkbox"/></td> <td>Supplier <input type="checkbox"/></td> <td></td> </tr> </table>	Skid-tube <input type="checkbox"/>	Crosstube <input type="checkbox"/>	Water Jet <input type="checkbox"/>	Engineering <input type="checkbox"/>	Machining <input type="checkbox"/>	Small Fab <input type="checkbox"/>	Prod. Eng. Coord. <input type="checkbox"/>	Quality <input type="checkbox"/>	Thermoforming <input type="checkbox"/>	Finishing <input type="checkbox"/>	Rec/Store/Packaging <input type="checkbox"/>	Other <input type="checkbox"/>	Large Fab <input type="checkbox"/>	Composite <input type="checkbox"/>	Supplier <input type="checkbox"/>	
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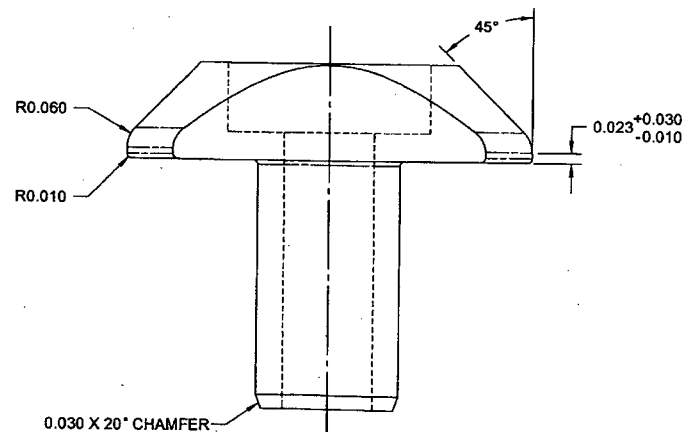
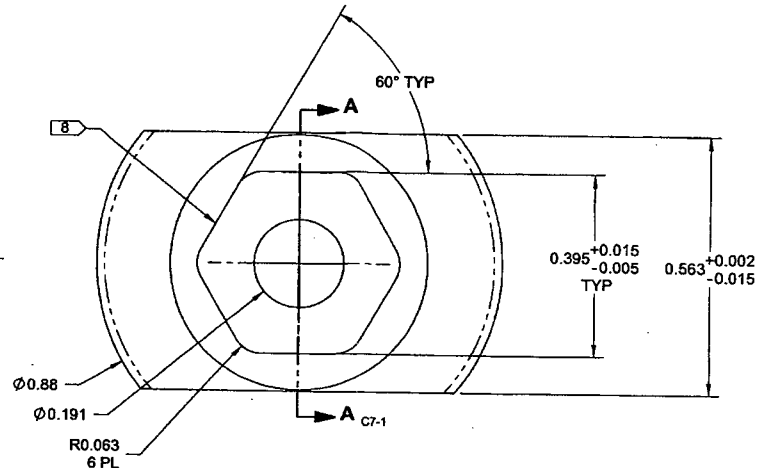
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FAULT CATEGORY

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C4-1 **SECTION A-A**



D4171-1 BUSHING

NOTES:

- 1) MATERIAL: AISI 303 STAINLESS STEEL ROUND BAR PER ASTM A582
REF DART SPEC M303R
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.02 lbs
- 8) HEXAGON/HOLE MUST ALLOW INSERTION OF AN3 BOLT.

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER

NO. 125038 ML5
14-10-03

RELEASED
2010-09-15
JM

A	NEW ISSUE	CP	10.08.26
REV.	DESCRIPTION	BY	DATE
DESIGN	JP		
DRAWN	JP		
CHECKED	JP		
MFG. APPR.	JP		
APPROVED	JP		
DE APPR.	JP		
DATE	10.08.26		

DART AEROSPACE LTD
HAWKESBURY, ONTARIO, CANADA

DRAWING NO.
D4171

REV. A
SHEET 1 OF 1

TITLE
BUSHING

SCALE
NTS

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WRITTEN PERMISSION FROM DART AEROSPACE LTD.

DART AEROSPACE LTD		Work Order:	125038
Description: Bushing		Part Number:	D4171-1
Inspection Dwg: D4171 Rev: A		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.750	+/-0.010	752	/		Vern	SL-10
0.540	+/-0.010	540	/		-	
0.210	+/-0.010	212	/		-	
0.150	+/-0.010	149	/		-	
Ø0.305	+0.000/-0.002	3035	/		-mic	21.4
R0.010	+/-0.010	0/5	/			
0.060	+/-0.010	063	✓		Vern	-
0.395	+0.015/-0.005	399	/			
0.563	+0.002/-0.015	556	/			
Ø0.88	+/-0.030	876	/			
Ø0.191	+0.005/-0.001	191	/			
R0.063	+/-0.010	063	/			
R0.060	+/-0.010	060	/			
45°	+/-0.5°	45°	/			
0.023	+0.030/-0.010	04	/			
0.030 x 20°	+/-0.010 x 0.5°	03x20°	/			

Measured by:	SL	Audited by:	MA	DAS	Preliminary Approval:	
Date:	14-10-3	Date:	14/10/04	08 9-89	Date:	

Rev	Date	Change	Revised by	Approved
A	10.10.25	New Issue	KJ	MA